

## INTERNATIONAL SEARCH REPORT

PCT/GB 03/05086

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 C01B3/26 D01F9/127 D01F9/133

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C01B D01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 227 062 A (LENTEK S P A) 31 July 2002 (2002-07-31) the whole document	1-11
A	EP 1 188 801 A (ERACHEM EUROP SA) 20 March 2002 (2002-03-20) the whole document	1-11
A	US 6 315 977 B1 (CANTACUZENE SERBAN) 13 November 2001 (2001-11-13) the whole document	1-11
X	US 4 650 657 A (BROOKS EDWARD F) 17 March 1987 (1987-03-17) the whole document	12

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the International search report

2 August 2004

10/08/2004

## Name and mailing address of the ISA

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## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

Method and apparatus for the conversion into carbon and hydrogen of gaseous hydrocarbons by reaction using a catalyst and using the energy generated by burning the hydrogen produced.

2. claim: 12

A process for the preparation of fibrous carbon which comprises contacting a metallic catalyst with a carbon-containing gas at elevated temperature, characterized in that said catalyst is sponge iron

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Information on patent family members

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1227062	A	31-07-2002	IT EP US	MI20010138 A1 1227062 A1 2002100216 A1	26-07-2002 31-07-2002 01-08-2002
EP 1188801	A	20-03-2002	EP AU BR CN WO JP US	1188801 A1 1393802 A 0113976 A 1458966 T 0224819 A1 2004510014 T 2004045808 A1	20-03-2002 02-04-2002 29-07-2003 26-11-2003 28-03-2002 02-04-2004 11-03-2004
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US 4650657	A	17-03-1987	US US US	4591334 A 4767737 A 4743431 A	27-05-1986 30-08-1988 10-05-1988